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REMARKS

In response to the Final Office Action mailed on June 29, 2005, Applicants respectfully request reconsideration.

Applicants would like to thank Examiner Duong for attending the interview on August 23, 2005 to discuss patentability of the pending claims. The interview included a discussion regarding the invention as recited in the pending claims in light of Nolan, U.S. Patent 6,640,278. Examiner Duong listened to arguments from Attorneys Barry W. Chapin and Paul P. Kriz (representatives of the Applicants) why Applicants persist that the pending claims are unique over Nolan, but did not provide a decision regarding patentability at the conclusion of the interview. The Examiner assured further consideration of the pending claims in light of Nolan when this reply was received.

The following remarks address the rejections of pending claims as set out in the Office Action and are consistent with the reasons discussed in the interview with the Examiner.

Applicants have rewritten claim 1 to include the limitations set forth in previously pending claims 28, 29, and 30 in order to expedite prosecution of the present application. Applicants have rewritten claim 12 to include the limitations of previously pending claims 42 and 43 to expedite prosecution of the present application. Additionally, claims 37, 46, and 49 each have been rewritten in independent form to include the limitations of claim 1 from which they previously depended. Claims 28, 29, 30, 42, and 43 are being canceled by way of this amendment. Additionally, claims 24-27 as well as claims 33 and 35 are being canceled by way of this amendment. Applicants make no admission that originally submitted claims 1, 12, 24, 27 and 33 are not patentable and reserve the right to pursue such claims in a continuation application.

Applicants encourage Examiner Duong to call the undersigned attorney of record if a discussion would be helpful towards furthering prosecution of the present application.

Rejection of Pending Claims 28-30 under 35 U.S.C. §102(e)

The Examiner has rejected previously pending claims 28-30 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). Applicants have amended claim 1 to include the limitations in previously pending claims 28-30. Thus, no new matter has been presented in the pending claims. The Office Action likens elements in Nolan to those in amended claim 1 to reject the claimed invention.

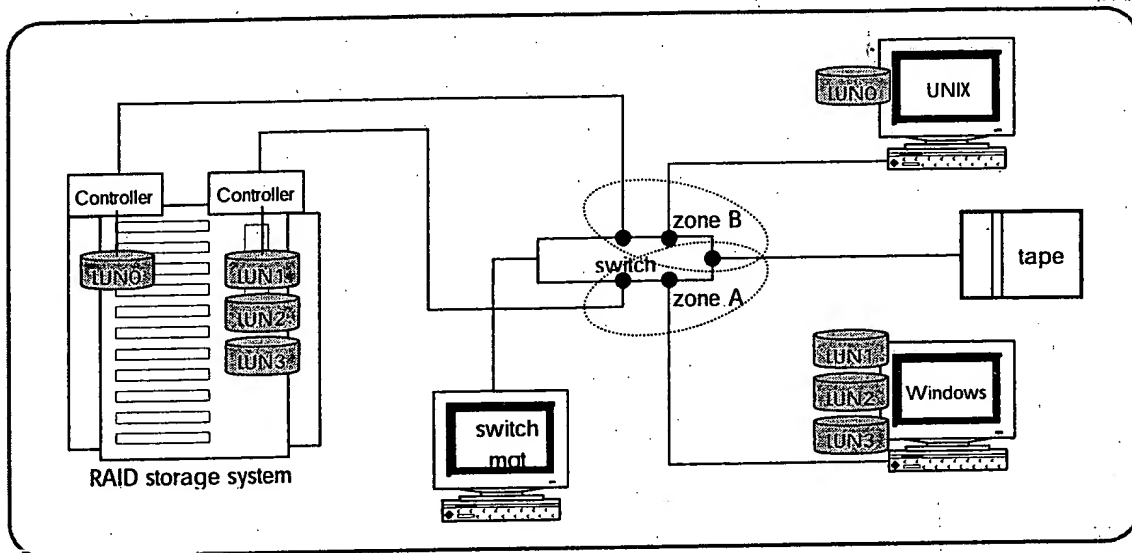
As a preliminary matter and as discussed at the interview, Applicants would again like to point out that the claimed invention pertains to configuring zones rather than utilizing a mapping of host servers to storage arrays to translate a transaction request for data as in Nolan. The office action discusses processing storage transaction requests for data (as in Nolan) and likens these techniques to configuring zones in a storage area network as in the claimed invention.

Applicants respectfully disagree with the assertion that these two techniques are equivalents. The two techniques are independent of each other. That is, the storage transaction requests do not have anything to do with configuring zones in switches of a storage area network. Accordingly, Nolan does not teach or suggest any of the previously presented claims. This as well as other arguments regarding patentability are discussed in more detail below.

As discussed in the interview, Applicants would like to point out what “zoning” means to one of ordinary skill in the art. Zoning is analogous to VLAN (Virtual Local Area Network) technology, but is done in the context of a storage

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area network for access control purposes. In general, a zone in a storage area network enables certain ports of a switch device to "see" each other and support a data access or connection between a host and target storage device in the storage area network. An example of zoning is shown in the diagram below:



(see

http://www.hp.com/products1/storage/products/virtualization_appliances/network/sv3000/infolibrary/sv3000_security_6_14.pdf)

As shown, zoning is one way of providing security in a storage area network. For example, use of zones enables certain hosts to access certain portions of a respective storage system through a respective switch. The pending claims pertain to configuring such zones in a storage area network application.

Applicants respectfully submit that verbiage of the claims should be given their broadest reasonable meaning in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definition or otherwise that may be afforded by the written description contained in the Applicant's specification (MPEP 2111). Given this claim interpretation standard as a guideline, Applicants respectfully

submit that the term “generic zone control command” in claim 1 would have a specific meaning to those of ordinary skill in the art. For example, in view of the specification, one of ordinary skill in the art would understand that the term “generic zone control command” refers to a command used to configure zone settings in a storage network.

To reject the claimed invention, the office action argues that “Nolan teaches of the communication interface of the SAN server receiving data storage transactions, which include read and write requests as well as status inquires.” As discussed above, Applicants contend that supporting read and write requests in a storage area network is not equivalent to receiving a generic zone control command as in the claimed invention and that the rejection is improper.

For example, there is no indication in Nolan that a read or write request associated with a data access in a storage area network is used for configuring zoning in the storage area network. In other words, according to Nolan, a read or write request from a host is used to access data from a specific storage location in a respective storage system of the storage area network, not configure zoning in the storage area network. Note that “storage domains” in Nolan refers to storage locations in a storage device (column 2, lines 23-28). Thus, storage domains in Nolan are not equivalent to zones as in the claimed invention. That is, the claimed invention recites controlling zoning in a storage area network by transmitting a configuration command to a “switch device.” This is not equivalent to routing a request to a specific storage location as in Nolan.

The office action further argues that “Nolan teaches of the storage transactions being translated to a common messaging format internal to the system for routing among the various interfaces...Furthermore, Nolan teaches that the storage domain routing resources map the transactions within the storage domain for the particular storage device.” Applicants submit that the

claimed invention is not directed toward an act of directing a storage transaction to particular storage device. Instead, the claimed invention is directed to configuring the storage area network and, more particularly, configuring one or more switches in a storage area network. Typically, configuring is performed before routing of respective requests are routed in a storage area network.

Moreover, as stated in the office action, note also that Nolan translates a storage transaction to a common messaging format. This respective cited passage (column 2, lines 49-52) teaches away from the claimed invention. For example, the claimed invention recites converting a generic or common command into one or more vendor specific configuration commands, not translating specific to generic as in Nolan.

Also, amended claim 1 now recites that the generic zone control command is translated into at least two different vendor specific commands. To reject claim 28-30 (which were amended into claim 1), the office action states that "Nolan teaches of identifying the target device based on the identifier in the request." (Nolan, column 8, lines 41-62). Applicants respectfully submit that identifying a target associated with a transaction request is not equivalent to converting a command into two different commands. Thus, the rejection of previously pending claims 28-30 is improper.

For the reasons stated above, and as discussed in previous replies to office actions, Applicants submit that amended claim 1 is patentably distinct and advantageous over the cited prior art, and the rejection of claim 1 under 35 U.S.C. §102(e) should be withdrawn. Accordingly, allowance of amended claim 1 is respectfully requested. If the rejection of amended claim 1 is to be maintained, Applicants respectfully request that it be pointed out with particularity where the cited prior art discloses all of its limitations.

Because claims 2-11, 31-32, 36, and 40 depend from and further limit amended claim 1, Applicants submit that claims 2-11, 31-32, 36, and 40 are in allowable condition as well.

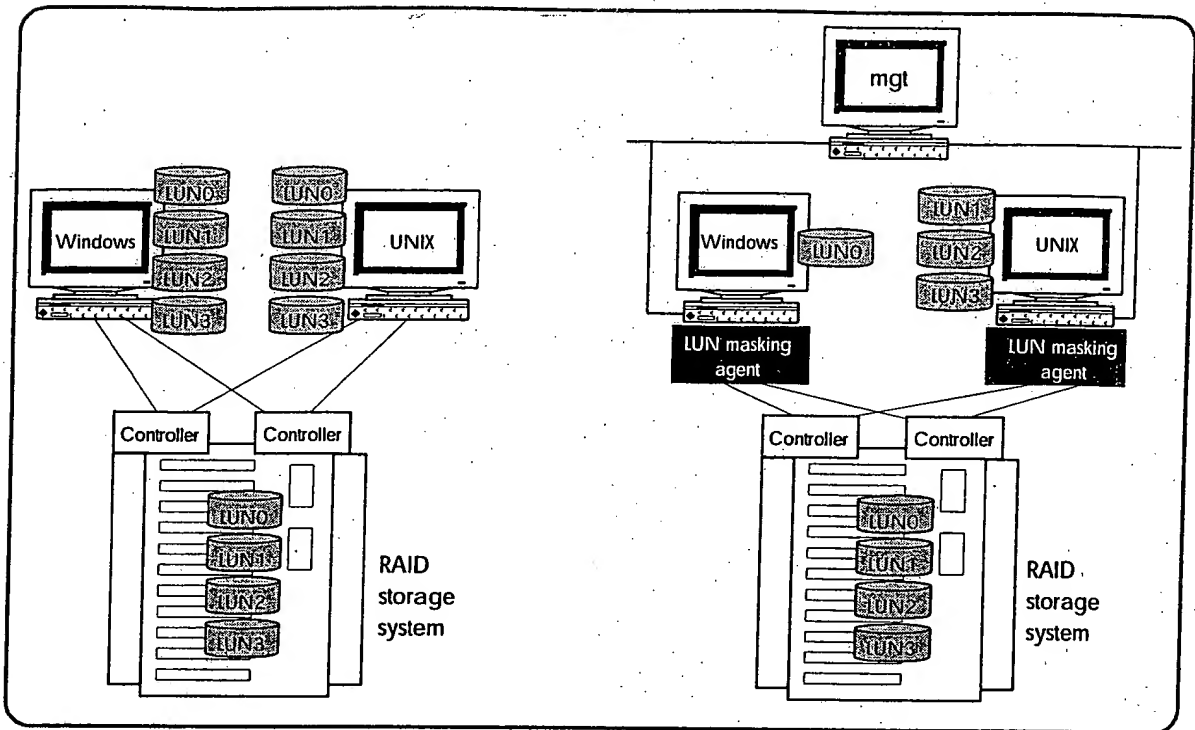
Rejection of Pending Claims 42-43 under 35 U.S.C. §102(e)

The Examiner has rejected previously pending claims 42 and 43 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). Applicants have amended claim 12 to include the limitations in previously pending claims 42 and 43. Thus, no new matter has been presented in the pending claims. The Office Action likens elements in Nolan to those in amended claim 12 to reject the claimed invention.

First, Applicants submit that the Nolan does not teach or suggest configuring zones in a storage area network as discussed above. The term “zone” has a specific meaning in the art.

Additionally, the office action states that “Nolan teaches of defining and redefining zones or storage domains at the LUN level by the storage domain manager because it offers a comprehensive set of centralized management capabilities that can be leveraged from a single management interface, regardless of vendor.” The following diagram illustrates LUN masking:

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Applicants respectfully submit that use of LUN masking techniques are completely different than “zoning.” For example, LUN masking techniques provide an alternative to zoning in order to provide access control in a storage area network. In particular, LUN masking refers to a technique of providing access security by allowing certain hosts to access certain LUNs. Zoning is performed in a switch device to create the equivalent of a VLAN. Thus, LUN masking as cited by the Examiner is not equivalent to configuring zones in a storage area network.

Regarding amended claim 12, Applicants would also like to point out that the computer system of the claimed invention controls which of multiple ports in the device shall be grouped together to form a zone through which servers are able to access a data storage system in a storage area network. As discussed, Nolan does not address configuring zones, especially in the manner recited in

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the claimed invention in which the computer system receives a generic command, translates the generic command, and configures multiple server ports and multiple data storage ports to be in a zone.

For the reasons stated above, and as discussed in previous replies to office actions, Applicants submit that amended claim 12 is patentably distinct and advantageous over the cited prior art, and that the rejection of claim 12 under 35 U.S.C. §102(e) should be withdrawn. Accordingly, Applicants respectfully request allowance of amended claim 12. If the rejection of amended claim 12 is to be maintained, Applicants respectfully request that the Examiner specifically address the points as discussed above.

Because claims 13-23, 41, 44, and 45 depend from and further limit amended claim 12, Applicants submit that claims 13-23, 41, 44, and 45 are in allowable condition as well.

Rejection of Pending Claims 37-39 under 35 U.S.C. §102(e)

The Examiner has rejected previously pending claims 37-39 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). Applicants have amended claim 37 to include the limitations in previously pending claim 1. Thus, claim 37 is now in independent form and includes no new matter requiring a further search by the Examiner.

For applicable reasons as discussed above, Applicants respectfully submit that the final office action does not provide a valid argument that claim 37 is non-patentable over Nolan. That is, the claimed invention includes limitations not found in the cited references.

In particular, Nolan does not teach or suggest receiving a generic zone control command and thereafter translating the generic zone control command

for purposes of controlling which of multiple ports in a device shall be grouped together to form a zone through which servers are able to access a data storage system in a storage area network.

Accordingly, Applicants respectfully request allowance of amended claim 37 as well as dependent claims 38 and 39. If the rejection of amended claim 37 is to be maintained, Applicants respectfully request that the Examiner specifically address the points as discussed above.

Rejection of Pending Claims 46-48 under 35 U.S.C. §102(e)

The Examiner has rejected previously pending claims 46-48 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). Applicants have amended claim 46 to include the limitations in previously pending claim 1. Thus, claim 46 is now in independent form and includes no new matter.

For applicable reasons as discussed above, Applicants respectfully submit that the final office action does not provide a valid argument that claim 46 is not patentable over Nolan. That is, the claimed invention includes limitations not found in the cited references.

In particular, Nolan does not teach or suggest receiving a generic zone control command and, thereafter translating the generic zone control command for purposes of controlling a zone configuration. For example, techniques of the claimed invention include converting the generic zone control command at a management station computer system. The translated command (e.g., vendor specific command) is sent over a network to a configure zoning in a target device. As discussed, Nolan converts and routes a transaction request to a target storage device. The transaction request in Nolan is not routed to the storage system for configuration purposes. And perhaps more importantly, the

transaction request in Nolan does not control a configuration of zoning in a storage area network. Thus, the claimed invention is distinguished over Nolan for a number of reasons.

Note that claims 47 and 48 further distinguish the invention over Nolan. For example, claim 47 recites that the management application translates the generic zone control command into two zone configuration commands. The office action provides no particular citation to a passage in Nolan indicating that a command in Nolan is converted to two vendor specific commands, especially in the context of controlling a configuration of zones in a storage area network.

Also, in contradistinction to Nolan, claim 48 further recites that the two vendor specific commands pertain to a common zoning function. Nolan does not teach or suggest that two different vendor specific devices in a storage area network can support a common zoning function. That is, there is no indication in the final office action that these limitations are present in the Nolan reference. Thus, the rejection of claim 48 is improper.

Accordingly, Applicants respectfully request allowance of amended claim 46 as well as dependent claims 47 and 48. If the rejections of claims 46-48 are to be maintained, Applicants respectfully request that the Examiner specifically address the points as discussed above.

Rejection of Pending Claim 49 under 35 U.S.C. §102(e)

The Examiner has rejected previously pending claim 49 under 35 U.S.C. §102(e) as being anticipated by Nolan (U.S. Patent 6,640,278). Applicants have amended claim 49 to include the limitations in previously pending claim 1. Thus, claim 49 is now in independent form and includes no new matter.

For applicable reasons as discussed above, Applicants respectfully submit that the final office action does not provide a valid argument that claim 49 is not patentable over Nolan. That is, the claimed invention includes limitations not found in the cited references.

In particular, Nolan does not teach or suggest a conditional translation of the generic zone control command. For example, claim 49 recites a step of “determining whether the generic zone control command needs to be translated to a corresponding zone configuration command understood by a respective vendor type of zone management device or whether the respective vendor type of device can interpret the generic zone configuration command and needs no translation” and “if translation is required, mapping parameters of the generic zone control command to parameters of a respective vendor specific device command to be forwarded to the respective vendor type of zone management device for configuring its corresponding zone settings; if no translation is required, initiating transmission of the generic zone control command to the respective vendor type of zone management device in order to configure corresponding zone settings of the respective vendor type of zone management device.”

Thus, if necessary, the claimed invention translates the generic zone control command into a respective vendor specific command to configure zoning. If not necessary, the claimed invention involves forwarding the generic zone control command to the respective device to configure zoning. The office action provides no support whatsoever for this element in Nolan. Thus, the rejection of claim 49 is also improper.

Accordingly, Applicants respectfully request allowance of amended claim 49. If the rejections of claims 49 is to be maintained, Applicants respectfully request that the Examiner specifically address the points as discussed above.

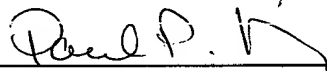
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CONCLUSION

In view of the foregoing remarks, Applicants submit that the pending claims as well as newly added claims are in condition for allowance. A Notice to this affect is respectfully requested. If the Examiner believes, after reviewing this Response, that the pending claims are not in condition for allowance, the Examiner is respectfully requested to call the Representative.

Applicants hereby petition for any extension of time which is required to maintain the pendency of this case. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50-0901.

Respectfully submitted,



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